

WHAT IS CLAIMED IS:

1. A communication channel selecting circuit for selecting one of a plurality of communication channels in which a radio signal is transmitted and received in accordance with a radio signal intensity thereof, the selecting circuit comprising:

 a radio unit outputting an intensity signal indicating the radio signal intensity of the radio signal received through an antenna in a receiving status and transmitting the radio signal to the antenna in a transmission status;

10 a control circuit setting said radio unit to the receiving status even at a transmission timing and outputting a timing signal for each of the channels during the transmission timing;

 a register storing a level of the intensity signal outputted from said radio unit in response to the timing signal; and

15 a transmission-receiving control circuit comparing the level stored in said register and selecting one of the channels for transmission and receiving.

2. A communication channel selecting circuit according to claim 1, wherein the signal outputted from said radio unit is an analog signal.

3. A communication channel selecting circuit according to claim 1, further comprising an A/D converter converting the analog signal into a digital signal, wherein said register stores digital data representing the digital signal.

4. A communication channel selecting circuit according to claim 1, further comprising a CPU comparing the level stored in said register, and transferring a result of the comparison to said control circuit.

25 5. A communication channel selecting circuit according to claim 1,

wherein said radio unit is switched between the receiving status and a transmission status by a switching signal.

6. A method for communication by allocating a transmission and a receiving to a plurality of channels in a frame, comprising the steps of:

5 measuring intensity of a radio signal received through an antenna in a receiving status even at a transmission timing allocated to a predetermined frame; comparing the intensity of the radio signal with a predetermined level; and selecting one of the channels for communication when the intensity of the measured radio signal in the one of the channels is at said predetermined level or

10 less in said comparing step.

7. A method for communication according to claim 6, wherein the channel has a transmission channel and a receiving channel.

8. A method for communication according to claim 7, wherein the radio signal measured in said measuring step is transmitted in the transmission channel.

15 9. A communication channel selecting circuit for selecting one of a plurality of communication channels in which a radio signal is transmitted and received in accordance with a radio signal intensity thereof, the selecting comprising:

20 an antenna for transmission and receipt of the radio signal; a radio unit connected to said antenna for outputting an intensity signal indicating the radio signal intensity of the radio signal received through an antenna in a receiving status and transmitting the radio signal to said antenna in a transmission status;

25 a plurality of storage circuits connected to said radio unit, each of said storage circuits storing a level of the radio signal intensity of the signal outputted

from said radio unit in response to a timing signal in each channel, respectively;

a control circuit connected to said radio unit and said storage circuits for compulsorily setting said radio unit to the receiving status at a transmission timing and for outputting the timing signal to said storage circuits during the transmission

5 timing; and

a transmission-receiving control circuit connected to said control circuit for comparing the level stored in said storage circuits and selecting one of the channels for transmission and receiving in response to the comparison.

10. A communication channel selecting circuit according to claim 9,

10 wherein the intensity signal is an analog signal.

11. A communication channel selecting circuit according to claim 10, further comprising an A/D converter connected to said radio unit and said storage circuits for converting the analog signal into a digital signal, wherein said storage circuits store digital data representing the digital signal.

15 12. A communication channel selecting circuit according to claim 9, further comprising a CPU connected to said storage circuits for comparing the level stored in said storage circuits, and outputting a result of the comparison to said transmission-receiving control circuit.

13. A communication channel selecting circuit according to claim 9,
20 wherein said radio unit is switched between the receiving status and a transmission status by a switching signal.

14. A communication channel selecting circuit according to claim 13, wherein said control circuit outputting the switching signal.

15. A communication channel selecting circuit according to claim 9,
25 wherein said channels includes first to fourth channels.

16. A communication channel selecting circuit according to claim 15, wherein said storage circuits includes

a first storage circuit for storing a level of the radio signal intensity of the signal in the first channel,

5 a second storage circuit for storing a level of the radio signal intensity of the signal in the second channel,

a third storage circuit for storing a level of the radio signal intensity of the signal in the third channel, and

10 a fourth storage circuit for storing a level of the radio signal intensity of the signal in the fourth channel.

17. A communication channel selecting circuit according to claim 15, wherein each of said channels include a transmission channel and a receipt channel.

18. A communication channel selecting circuit according to claim 17, 15 wherein said storage circuits includes

a first storage circuit for storing a level of the radio signal intensity of the signal in the first transmission channel,

a second storage circuit for storing a level of the radio signal intensity of the signal in the second transmission channel,

20 a third storage circuit for storing a level of the radio signal intensity of the signal in the third transmission channel,

a fourth storage circuit for storing a level of the radio signal intensity of the signal in the fourth transmission channel,

a fifth storage circuit for storing a level of the radio signal intensity of the 25 signal in the first receipt channel,

a sixth storage circuit for storing a level of the radio signal intensity of the signal in the second receipt channel,

a seventh storage circuit for storing a level of the radio signal intensity of the signal in the third receipt channel, and

5 an eighth storage circuit for storing a level of the radio signal intensity of the
signal in the fourth receipt channel.

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